



Patent Attorney's Docket No. 005950-657

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
Dennis J. O, Rear)
Application No.: 09/966,298) Group Art Unit: 1764
Filed: September 27, 2001) Examiner: Ellen M. McAvoy
For: Lube Base Oils with Improved Stability) Confirmation No.: 5063

DECLARATION UNDER 37 C.F.R. § 1.132

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

I, John M. Rosenbaum, declare as follows:

- 1. I received a B.S. degree in Chemistry from San Diego State University in 1976, a M.S. degree in Material Science and Engineering from University of California, Berkeley in 1980, and a Ph.D. degree in Material Science and Engineering from University of California, Berkeley in 1981.
- 2. I am employed as a Staff Scientist in the Base Oil Technology Team at Chevron Research and Technology Company. I have been employed at Chevron Research and Technology Company since 1981.
- 3. I am an inventor or coinventor of five United States patents and two U.S. patent publications. I am familiar with the above-referenced patent application, U.S. Application Serial No. 09/966298; however, I am not a coinventor on this application.

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- 4. I am familiar with the Oxidator BN test used for measuring the oxidation stability of lubricant base oils during simulated use, and I routinely use the Oxidator BN in analyzing samples of lubricating base oils.
- 5. I hereby submit that I have tested countless lubricating base oils, including non-synthetic lubricating base oils. I also hereby submit that all non-synthetic lubricating base oils do *not* have an Oxidator BN value of less than 7, and furthermore, all non-synthetic lubricating base oils do *not* have an Oxidator BN value of less than 10.
- 6. By way of example, a number of lubricating base oils were evaluated for Oxidator BN, using the test as follows:

A sample of an oil mixture was prepared by combined a test oil with with 80 millimoles of zinc bispolypropylenephenyldithiophosphate per 100 grams of test oil and and further with 0.8 ml of a catalyst mixture of metal naphthenates in kerosene, and containing 6930 ppm copper, 4080 ppm iron, 80,200 ppm lead, 350 ppm manganese and 3670 ppm tin per 100 grams of test oil.

A 25 gram sample of the oil mixture was weighed into a Dornte-type oxygen absorption apparatus ((R.W. Dornte "Oxidation of White Oils," Industrial and Engineering Chemistry, Vol. 28, page 26, 1936). A glass stirrer was inserted, and the cell sealed. The cell was placed in an oil bath maintained at 340°F and connected to the oxygen supply. One liter of oxygen was fed into the cell while the stirrer agitated the oil sample. The test was run until 1 liter of oxygen was consumed by the sample and the total time, in hours, of the sample run was reported.

7. The results of the above-analyses for a number of non-synthetic lubricant base oils are summarized below in Table I.

Table I

Lubricating Base Oil	Oxidator BN, Hrs.	
Ashland 100SN	7.21	
Ashland 100SN	8.70	
Ashland 100SN	8.36	
Ashland 100SN	8.16	
Ashland 100SN	6.20	•
Ashland 100SN	7.04	
Ashland 325SN	7.13	
Ashland 325SN	7.36	
Ashland 325SN	7.20	,
ExxonMobil 75SN	8.86	
Exxon 100 LPSN	7.02	
EXXON 150 N	7.85	
ExxonMobil Americas Core 100	7.53	_
ExxonMobil Americas Core 150	7.55	" /
ExxonMobil Americas Core 150	7.71	- All
Exxon 330SN	6.79~	0 1155
Exxon 330SN	6.96 ►	9 115 Har
ExxonMobil Americas Core 330	7.70	64
EXXON 500SN	7.54	150
ExxonMobil Americas Core 600	7.50	
ExxonMobil AP/E Core 600	6.51	
ExxonMobil AP/E Core 600	8.60	
ExxonMobil Americas Core 2500	5.74	
ExxonMobil AP/E Core 2500	4.90~	
ExxonMobil Americas Core 2500	6.21~	
Valero Valpar 100	7.71	
Valero Valpar 165	6.18	
Valero Valpar 500	7.98	
Valero Valpar 150BS	6.02-	
ChevronTexaco 100R	21.7	·
ChevronTexaco 220R	20.2	
ChevronTexaco 600R	15.6	
Motiva Star 4	15.4	
Motiva Star 8	10.6	
Motiva Star 12	12.4	
Pennzoil 100HC	19.8	
Pennzoil 230HC	16.5	
Pennzoil 575HC	21.7	

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8. I hereby declare that all statements made herein of my own knowledge are true and that all statements made upon information and belief are believed to be true. I understand that willful false statements and the like are punishable by fine or imprisonment, or both under 18 United States Code section 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

John M. Rosenbaum

Date